

Leek
District



Urban
Council.

JOINT REPORT OF THE MEDICAL OFFICER OF HEALTH AND SANITARY INSPECTOR ON THE SANITARY CONDITION OF LEEK FOR THE YEAR 1896.

LEEK:

CHARLES KIRKHAM, PRINTER, STATIONER, &c., DERBY STREET.



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REPORT
OF THE MEDICAL OFFICER OF HEALTH
FOR THE
LEEK URBAN SANITARY DISTRICT.

The report of the sanitary condition of Leek for the year 1896 must be considered on the whole as very satisfactory, for although during some of the months the deaths were numerous, as will be seen on examining the tables, yet taking the whole year we find the number 257, which in our present population shows a rate of mortality of 17·2 in each 1000 of the living, but if we leave out the deaths of persons brought from other districts to the Workhouse and Cottage Hospital, the death-rate of the Urban District proper is 16·6 to 1000 living. This is the lowest rate recorded for 46 years, except once in 1874.

These 257 deaths comprised 129 males and 128 females, the mean age at death of the former being 36·7, and the latter 36, averaging 36·4 for each individual. This is the only time since records were kept when the average of man's life was greater than that of women.

The births registered during the year amount to 408—208 males and 200 females, the birth-rate being 27·3 to each 1000.

It is satisfactory to report that the infantile death-rate, as measured by the number of deaths under 1 year of the 408 births, is the smallest recorded since 1877, viz., 115, and is in marked contrast with the return of last year, when it was 181, and compares most favourably with the rate of mortality in the same class in the country generally which is about 150.

The deaths occurred at the following ages :

Under 1 year	.....	.....	47
Between 1 and 5 years	.....	.....	36
" 5 and 15 "	.....	.....	7
" 15 and 25 "	.....	.....	17
" 25 and 65 "	.....	.....	87
Over 65 years	....	....	63

In the *Zymotic* class of diseases the chief cause of death was Measles—a very severe epidemic visiting the town in the months of August, September, October and November, and prevailing to such an extent as to necessitate the closing of the Day and Sunday Schools for a period of five weeks. The number of deaths resulting was 24, arising principally from Pneumonia and Bronchitis following the attack. Measles is not notified in this district.

Of notified cases of infectious diseases we had 70, consisting of 47 of Scarlet Fever with 1 death, 12 of Enteric Fever with 4 deaths, 7 of Diphtheria and Membranous Croup with 1 death, and 4 from other causes.

The remarks of the Sanitary Inspector in his report will show how these cases were disposed of, and I must again assert the exceeding usefulness of the Isolation Hospital.

In the *Constitutional* group we find deaths from Tubercular diseases, including Phthisis, exactly the same as last year, viz., 32, while the mortality from Cancer was increased by 7, the actual number of deaths being 18—the largest return I have ever made.

In the *Local* class we have deaths arising from diseases of the Brain and Nervous System and Heart remaining much the same as last year, but those from diseases of the Lungs and Digestive Organs were much reduced.

In *Developmental* diseases deaths from Debility and Premature Birth were much fewer than in 1895. also those from actual Old Age; the former being 14 as compared with 30, and the latter 19 as compared with 31.

Five deaths were from violent causes.

I have nothing of special moment to record for 1896. Our water supply continues abundant and excellent. Our drainage is in good order, and our scavenging regular and effective, while the abatement of nuisances follows immediately on complaint of the same.

Continuous inspection of the town is made by myself and my Inspector, and monthly reports are given to the Urban Council by us both; and I can only reiterate what I have often said before, that wherever external means can affect the sanitary con-

dition of the people, there we see disease abating, health improving, and life increasing; but in relation to those diseases, chiefly in the Local class, where men's habits and customs play the largest part in their ailments, there we discover little, if any, improvement.

A careful perusal of the Inspector's report will convince any reader of the amount of work that is done in this department; and it is perhaps worth remarking, that at the present moment we have only 1 cesspool in connection with our factories, only 1 cellar dwelling-house, and only 12 back-to-back houses.

The contrast of now and a few years ago is very great, and the result attained is clearly shown in the paragraph of the Inspector's report that refers to a Life Table based on the experience of Leek.

Appended are Tables of Causes and Ages at Death, and the Report of the Sanitary Inspector.

J. J. RITCHIE,

Medical Officer of Health.



CAUSES OF DEATH IN 1896.

		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Zymotic Diseases	{													
Measles				I				3	6	8	5	1	24	
Typhoid Fever			I		I			I	1	1	1		4	
Diphtheria								I				I		I
Scarlet Fever								I			I		I	
Constitutional Diseases.	{													
Phthisis	I	3	3	I	I	I	3	4	2	4	2	I	26	
Tubercular Diseases ..	I	I	..	I	..	I	..	..	..	..	I	I	6	
Cancer	3	3	I	I	2	I	I	..	2	I	3	18		
Syphilis		I											I	
Alcoholism								I		I	..		2	
Rheumatism										I		I		
Local Diseases.	{													
Diseases of Brain, &c...	2	3	2	I	2	2	5	4	I	2	3	4	31	
" Respiration	4	I	6	4	2	..	..	I	3	4	4	6	35	
" Circulation	2	I	..	2	..	2	..	I	5	5	2	8	28	
" Digestion		2	I	I	I	I	2	2	3	3	2	2	19	
" Urination ..	I	..	3	..	I	I	..	3	..	I	I	2	13	
" Generation ..	I	..	I	I	..	..	..	..	I	..	I	..	4	
Developmental Diseases.	{													
Debility, &c.....	I	I	..	2	..	2	..	I	2	..	..	..	9	
Old Age	3	I	2	3	I	2	..	..	I	3	..	3	19	
Teething					I				I				2	
Childbirth										I			I	
Premature Birth									2	..	3	5		
Sudden or Violent	I	..	..	3	..	..	..	2	..	..	..	..	6	
Total.....	16	15	23	19	13	14	12	21	28	38	23	35	257	

AGES AT DEATH.

	0—1	1—2	2—3	3—4	4—5	Total under 5	5—10	10—15	15—25	25—35	35—45	45—55	55—65	65—75	75—85	85—95	Total
January ..	3	2	..	..	5	1	..	..	..	2	3	3	2	..	16		
February ..	4	..	..	..	4	1	1	2	..	..	1	2	..	4	..	15	
March ..	4	1	..	1	..	6	..	..	3	2	3	2	..	3	4	..	23
April	5	1	1	..	7	1	..	2	..	3	..	..	4	..	2	19	
May	2	1	..	..	1	4	..	..	3	2	..	2	1	1	..	13	
June	2	..	..	..	..	2	..	1	2	1	..	1	3	1	2	1	14
July	1	..	..	..	..	1	..	..	1	..	..	3	4	3	..	12	
August ..	4	1	1	1	..	7	..	..	..	4	2	3	2	3	..	21	
September ..	7	4	2	..	..	13	..	1	..	2	1	2	2	4	3	..	28
October ..	6	8	1	..	1	16	1	..	3	2	3	3	5	2	3	..	38
November ..	2	3	1	1	..	7	..	..	3	2	1	1	3	4	2	..	23
December ..	7	3	..	1	..	11	..	..	1	2	4	2	6	6	2	1	35
Total ..	47	22	8	4	2	83	4	3	17	14	21	19	33	33	26	4	257

SANITARY INSPECTOR'S REPORT.

ACTION TAKEN FOR THE ABATEMENT OF NUISANCES, &c.

During the year ending December, 1896, the following cases of Nuisances and other matters complained of were dealt with, comprising:—

- 53 cases of defective or want of private drainage.
- 2 „ slop-stone drains admitting sewer gas in house disconnected.
- 11 „ defective water closets.
- 13 „ offensive privies.
- 16 „ accumulation of offensive matter.
- 8 „ offensive cesspools filled up.
- 2 „ want of drain ventilation.
- 8 „ dilapidated buildings.
- 2 „ houses in a filthy condition.
- 2 „ nuisances arising from over-crowding.
- 1 case of slaughter-house nuisance.

- 2 cases of water course polluted by sewage.
- 2 „ of poultry kept in dwelling-houses contrary to Bye-laws.
- 1 case of tripe and offal boiling and fish frying.
- 1 „ want of proper paving in private yards attached to dwelling-houses.
- 4 cases of houses in such condition as to be unfit for habitation closed or pulled down.
- 8 „ of want of privy or water closet accommodation
- 23 „ want of proper receptacles for ashes.
- 7 „ nuisance arising from dense black smoke.
- 1 case of keeping unregistered common lodging-house.
- 28 houses, including 3 schools, and 595 articles of infected bedding, &c., were disinfected or destroyed.
- 2 cases in which pigs were removed to a distance of more than 20 yards from a dwelling-house in accordance with the requirements of the Bye-Laws

A considerable number of nuisances were abated without formal notice being given.

There are 13 notices of nuisances remaining on the books not yet complied with.

OFFENSIVE PRIVIES AND CESSPOOLS.

- 25 offensive privies were converted into water closets.
- 19 offensive ash pits were abolished, and portable receptacles provided in lieu thereof.

LEGAL PROCEEDINGS.

Action was taken in 16 cases requiring the abatement of nuisance arising from the emission of dense black smoke, and legal proceedings taken in one case for non-compliance, and an order of abatement obtained.

REMOVAL OF ASHES AND NIGHT-SOIL.

The Scavenging Department removed 4412 loads of house ashes and garbage, and 310 loads of night-soil.

COMMON LODGING-HOUSES.

There are 4 houses licensed under the Common Lodging-houses Acts, for the reception of 117 casual lodgers. The regulations approved by the Local Government Board for the management of these houses have with one exception been satisfactorily observed. One case of infectious disease occurred in these houses during the year.

SLAUGHTER-HOUSES.

There are 6 Slaughter-houses within the Town licensed subject to the Bye-laws authorized by the Local Government Board.

BAKEHOUSES AND WORKSHOPS.

The Bakehouses and Workshops within the limits of the Leek Improvement Act have been inspected from time to time, and any suggestion made with a view to keeping the same in a satisfactory condition has been complied with by the occupier. One tailor's workshop unfit for occupation has been closed.

PETROLEUM STORES.

There is one license in force within the Town for the keeping or sale of Petroleum or other substances of a like nature.

GAS SUPPLY.

The purity of the Gas supplied to the Town was tested from time to time in the manner required by the 34th and 35th Vic., cap. 41. Impurity arising from the presence of sulphuretted hydrogen was shewn by the tests on 1 day during the year 1896.

NOTIFICATION OF INFECTIOUS DISEASE.

During the year ending 1896, 70 cases of infectious diseases, consisting of 47 cases of scarlet fever; 5 of diphtheria; 2 of membranous croup; 12 of enteric fever; and 4 from other causes were reported in the form set forth in the schedule provided in that behalf, and the necessary steps promptly taken to prevent the spread of the disease. 48 of these cases were removed to the hospital, and the remainder treated at their homes. Notwithstanding the efforts of the department, it has been found exceedingly difficult in many cases to secure satisfactory isolation of cases of scarlet fever at home. Thoughtless persons attending upon the patient mixing with others without taking

proper precautions, and receiving visitors into the infected house, have been the means of spreading the infection to a large extent. In other instances cases have been of so mild a character that it was not thought necessary to call in the doctor, and the case has gone unrecognised, the children being allowed to mix with others, and spread the infection. The source of milk supply is recorded in every case of infectious disease notified, and we have no evidence of any mischief resulting from its distribution.

ISOLATION HOSPITAL.

Year ending December, 1896.

Number of patients in Hospital, Jan. 1st, 1896	.....	0
Do. do. admitted during the year	.....	48
Do. do. discharged do.	.....	32
Do. do. died do.	.....	2
Do. do. in Hospital, Dec. 31st, 1896	.....	14

The average duration in Hospital of each patient discharged was 29·1 days.

The rate of mortality among the Patients treated in the Hospital was only 4·16 per cent.

INTERMENTS WITHIN THE TOWN.

During the year ending December, 1896, 8 interments took place in the Burial Ground attached to St. Edward's Church, 1 in the ground attached to St. Luke's Church, and 4 in the Ground attached to Mount Pleasant Wesleyan Chapel. The provisions of the Orders in Council relating thereto were duly observed.

TABLE I.—ABSTRACT OF THE CENSUS RETURNS OF 1851, 1861, 1871, 1881 AND 1891, WITHIN THE LIMITS OF THE LEEK IMPROVEMENT ACT.

Census Year	Area in Statute Acres	HOUSES.			PERSONS.		
		Inhabited	Uninhabited	Building	Males	Females	TOTAL
1851	1460	1791	39	22	4315	4781	9066
1861	1460	2228	101	27	4086	5488	10174
1871	1460	2386	88	2	5087	6244	11331
1881	1460	2726	136	18	5874	6991	12865
1891	1460	3022	169	24	6420	7708	14128

TABLE 2.—POPULATION, BIRTHS AND DEATHS.

Table shewing the mean Population, the number of Births and Deaths, and the average annual number of Births and Deaths to 1000 persons living, and the mean Age at Death of males, females and persons within the limits of the Leek Improvement Act, during various periods of the 46 years ending 1896.—(W. H. H.)

Periods.	Mean Population	Average Annual Number of Births and Deaths to 1000 living.				Mean Age at Death.		
		Total number of Births		Deaths	Births	Deaths	Males	Females
		Births	Deaths					
10 years 1851-60	9635	3440	2819	35·7	29·3	23·5	25·9	24·8
10 years 1861-70	10752	3516	2540	32·7	23·6	29·1	34·7	32·0
10 years 1871-80	12098	4167	2734	34·4	22·6	30·8	32·3	31·5
10 years 1881-90	13496	4146	2668	30·1	19·8	32·7	35·9	34·3
5 Years 1891-95	14434	2124	1416	29·4	19·6	34·9	38·3	36·6
Year 1896	14920	408	257 ^a	27·3	17·2 ^b	36·7	36·0	36·4

^a This number includes 9 persons brought to Public Institutions from other Districts, viz., 1 from Norton, 1 from Biddulph, 2 from Longnor, 1 from Heaton, 1 from Smallthorne, 1 from Birmingham (who died in the Workhouse), and 1 from Bagwall, and 1 from Rudyard (who died in the Cottage Hospital). ^b With one exception (1874) this is the lowest annual rate of mortality recorded in any year during the 46 years 1851-96.

Excluding the 9 Deaths in Public Institutions in the Town of persons brought there from other Districts, the corrected annual rate of mortality in the Urban District of Leek for the year ending December, 1896, is 16·6 to 1000 living. Provided the vital experience of the Urban District during the year 1896 were continued for all time hereafter, the mean duration of life of every person born would amount to 48·3 years, or 6·6 years longer life than that given for England and Wales in the "English Life Table, No. 3."

A brief review of the past vital experience of the population of Leek shows that the value of life gradually decreased from 1801 to 1860. During the 10 years, 1851-60, the subject received marked attention from those gentlemen then responsible for the local government of the town, which resulted in the passing of the "Leek Improvement Act, 1855." Urged by our good friend, the late Sir E. Chadwick, we commenced keeping our vital statistical record in 1851, in the compound form suggested by the late Dr. Farr, Superintendent of the Vital Statistical Department of Somerset House. For various sanitary purposes this record has afforded valuable information.

A Life Table based upon the vital experience of the population of Leek (including Public Institutions) for the ten years ending 1860, gives a mean duration of life to each person born of 29·3 years; for the ten years ending 1870, 37·9 years; for the ten years ending 1880, 42·3; for the ten years 1890, 46·5 years; and for the five years ending 1895, 48·7 years; which shows conclusively that the various sanitary and other improvements effected, including new water supply and drainage, school hygiene and elementary education and careful observances of Factory and Workshop regulations, combined to make physical growth more perfect, decay less rapid, life more vigorous, and death more remote. It is also worthy of note that the total Urban District rate has never exceeded 2s. 6d. in the £.

TABLE 3.—INFANT MORTALITY.

Table showing the number of Births; the number of Deaths under 1 year; and the rate of mortality to 1000 births, within the limits of the Leek Improvement Act, during various periods of the 46 years ending 1896.

Periods.	Number of		Rate of Mor- tality to 1000.
	Births	Deaths under 1 year	
10 years 1851-60	3440	646	187·8
10 years 1861-70	3516	573	162·9
10 years 1871-80	4167	670	160·7
10 years 1881-90	4146	585	141·1
Year 1891	406	51	125·6
" 1892	417	65	155·8
" 1893	425	59	138·8
" 1894	429	71	166·3
" 1895	447	81	181·2
" 1896	408	47	115·2

There is no doubt but that the objectionable system of the employment of mothers of infants from their homes is, to a large extent, responsible for the loss of infant life.

TABLE 4.

Percentage of Illegitimate Births in Leek during each of the under-mentioned periods of the 46 years ending 1896.

Periods of Years.	Percentage of Illegitimate Births.
10 years 1851-60	9·7
10 years 1861-70	8·8
10 years 1871-80	8·5
10 years 1881-90	6·8
Year 1891	5·2
" 1892	4·8
" 1893	6·8
" 1894	6·3
" 1895	5·6
" 1896	4·6

HOUSING OF THE WORKING CLASSES' ACT, 1890.

During the year one dwelling-house unfit for human habitation was closed and three pulled down.

CANAL BOAT ACTS, 1877 AND 1884.

During the year ending December, 1896, I inspected 48 Canal Boats within the Urban Sanitary District of Leek. With two exceptions, the condition of the Boats and their occupants, as regards the several matters dealt with in the Acts and Regulations, was satisfactory. No proceedings were taken further than cautioning the persons concerned.

DAIRIES, COW-SHEDS & MILK-SHOPS ORDERS, 1885-6.

There are 50 persons registered pursuant to the above-mentioned Orders within the Urban Sanitary District of Leek. The Regulations of the Local Authority made in that behalf, which came into force on the 1st day of August, 1891, are being enforced. There are 213 milch cows kept within the district.

SANITARY CONDITION OF SCHOOLS.

During the year considerable sums have been expended by managers of Elementary Schools in increasing the accommodation, and materially improving their Sanitary condition.

R. FARROW,

Sanitary Inspector.

31 Decr 1896.

Leek U. D. Council

Medical and
Sanitary Officers
Reports